

REMARKS

Claims 1 to 35, 37, 39, and 41 to 43 are pending in the application. Claims 1, 9, 21 and 33 are independent. Favorable reconsideration and further examination are respectfully requested.

In the Office Action, claims 1, 2, 5 to 11, 14 to 23, 26 to 35, and 40 to 43 were rejected under 35 U.S.C. §103 over U.S. Patent No. 6,529,958 (Oba) in view of U.S. Patent No. 6,061,626 (Meredith); and claims 3, 4, 12, 13, 24, 25, and 34 to 39 were rejected under §103 over Oba and Meredith in view of U.S. Patent No. 5,539,815 (Samba). As shown above, Applicants have amended the claims to define the invention with greater clarity. In view of these clarifications, withdrawal of the art rejections is respectfully requested.

Amended independent claim 1 defines a method for use on a network, which includes determining a first color vector for a path comprised of multiple links between nodes of the network, where the first color vector is determined based on color vectors for the multiple links, each of the color vectors represents multiple colors that correspond to attributes of the network, and the first color vector indicates colors that all of the multiple links include. The method also includes determining a second color vector for the path based on the color vectors for the multiple links, where the second color vector indicates colors that none of the multiple links include, and using the first color vector and the second color vector in determining a route through the network.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In this regard, Oba describes a label switched path (LSP) network that uses

"threads" to detect loops in the network. As defined in Oba, a thread is "information containing at least an identifier for uniquely identifying in the network a message regarding a path set up for which ACK regarding that flow is awaited" (column 6, lines 39 to 42 of Oba). The threads include an identifier, namely a thread color, which is used for comparison by downstream network nodes to determine if there is a loop in the network (see, e.g., column 12, lines 40 to 51 of Oba). Although Oba uses color as an identifier in its threads, that is where the similarity to claim 1 ends.

More specifically, nowhere does Oba disclose or suggest the use of color vectors, where a color vector is for a path comprised of multiple links between nodes of the network, and is determined based on color vectors for the multiple links, each which represents multiple colors that correspond to attributes of the network, and where color vectors are used to determine colors that all (or none) of the multiple links include. In this regard, the Office Action cites column 6 of Oba for its alleged disclosure of color vectors. As explained above, however, column 6 of Oba describes threads, which use color merely as an identifier. Column 6 of Oba, or any other portion of Oba for that matter, does not disclose or suggest the use of color vectors, as claimed.

Meredith was cited for its alleged disclosure of a vector that indicates something that none of multiple links include (see top of page 3 of the Office Action). The cited portion of Meredith, however, merely describes entering nodes to be excluded from a route and then calculating the route based on the excluded nodes. This disclosure, however, does nothing to make up for the deficiencies of Oba with respect to using color vectors.

For at least the foregoing reasons, claim 1 is believed to be patentable.

Amended independent claim 9 defines a method, which includes determining whether a path through a network includes all colors that must be included in a label switched path (LSP), where the colors correspond to attributes of the network associated with the LSP, the path comprises multiple links having color vectors, a color vector for a link represents multiple colors that correspond to attributes of the network associated with the link, and determining is performed based on the color vectors for the multiple links. The method also includes determining, based on the color vectors for the multiple links, whether the path includes any colors that must be excluded from the LSP, and deciding whether to include the path in the LSP based on colors associated with the path.

As explained above with respect to claim 1, Oba and Meredith, whether taken alone or in combination, fail to disclose or to suggest the use of the use of color vectors, where a color vector is for a path comprised of multiple links between nodes of the network, and is determined based on color vectors for the multiple links, each which represents multiple colors that correspond to attributes of the network, and where color vectors are used to determine colors that all (or none) of the multiple links include.

For at least the foregoing reason, claim 9 is believed to be patentable. Amended independent claims 21 and 33 are article of manufacture and apparatus claims, respectively, that roughly correspond to claim 9. These claims are believed to be patentable for at least the same reason noted above with respect to claim 9.

Samba, which was cited against the dependent claims, has been reviewed and is not understood to add anything to the disclosures of Oba and Meredith that would remedy their foregoing deficiencies vis-à-vis claim 1. Accordingly, the entire application is believed to

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be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' attorney can be reached at the address shown above. Telephone calls regarding this application should be directed to 617-521-7896.

No fee is believed to be due for this Amendment; however, if any fees are due, please apply them to Deposit Account 06-1050.

Respectfully submitted,

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